

### 57-17 KaVo 635B High-speed Fiberoptic Handpiece (Project 98-39) (4-99)

The KaVo 635B Fiberoptic High-speed Handpiece features a compact turbine head and is designed for a wide range of dental restorative procedures. It replaces the discontinued Kavo 642B model high-speed handpiece. Improvements over the 642B include a redesigned turbine with the same power as the 642B but at reduced RPM's and lower noise



levels, softer grip knurling for easier cleaning prior to sterilization, and a non-return valve to virtually eliminate aspiration of contaminated fluids into the handpiece. The 635B is connected to the dental unit handpiece hose by either the KaVo Multiflex Lux 465 LRN or the Kavo Multiflex Lux 1390 Coupler. Both couplers provide easy handpiece interchangeability, anti-retraction valves, and 360° swivel. The Multiflex Lux 465 LRN Coupler contains the fiberoptic bulb and water spray adjustment and is used with Kavo LCM illuminators and tubing (6-pin type). The Kavo Multiflex Lux 1390 Coupler allows the handpiece to be connected to standard ISO 5-hole fiberoptic handpiece hoses that provide the fiberoptic light with a bulb at the end of the hose or from a remote source. The handpiece has a push-button autochuck and can be heat sterilized in either an autoclave or chemiclave. The free-running speed was measured by DIS and found to be 337,000 RPM at 34 psi. The handpiece contains an automatic air regulator valve that senses line air pressure and automatically reduces it to the correct 34 psi. This allows all handpiece hose pressures to be set at the higher air pressures required for slow-speed handpieces without damaging the high-speed handpiece. The turbine is field replaceable to reduce down time but Kavo recommends returning the handpiece to them for servicing. The KaVo 635B handpiece (including coupler) is 14 cm (5.5 inches) long and weighs 88 grams (3.1 ounces). The handpiece head is 11 mm (0.43 inches) in diameter and 12.5 mm (0.5 inch) long. The distance from the back of the handpiece head to the tip of a standard 19-mm bur (i.e., interocclusal clearance) is 21 mm (0.83 inches). The 635B is warranted against defects in materials and workmanship for one year.

#### Manufacturer:

KaVo America  
340 East Main Street  
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(800) 323-8029  
(847) 550-6800  
(847)550-6825 FAX

#### Suggested Retail Prices:

635B High-speed Handpiece \$875.00  
Multiflex Lux 465 LRN Coupler \$245.00  
Multiflex Lux 1390 Coupler \$205.00

#### Government Prices:

635B High-speed Handpiece \$446.25  
Multiflex Lux 465 LRN Coupler \$147.00  
Multiflex Lux 1390 Coupler \$98.00

#### ADVANTAGES:

- + Excellent longevity following repeated use/sterilization (based on previous evaluations of Kavo handpieces).
- + Good power (12.2 watts).
- + Minimal degradation of fiberoptic intensity (based on previous studies of Kavo handpieces).
- + Automatic air pressure regulator.
- + 360° swivel coupler.
- + Excellent concentricity.
- + Push-button bur release.

- + Excellent visibility and interocclusal clearance.
- + Turbine is field replaceable.
- + Only requires lubrication before sterilization.
- + One-year warranty.

**DISADVANTAGES:**

- Coupler is easily damaged if dropped or abused.
- Cellular fiberoptics can break if dropped.

**SUMMARY AND CONCLUSIONS:**

The Kavo 635B fiberoptic high-speed handpiece is the replacement for the popular 642B model. It performed much better than average for most parameters evaluated. Its power (12.2 watts) was in the middle third of all models evaluated, but was well over the 5 watts required for clinical acceptability. Previous long-term clinical use/sterilization studies have demonstrated the excellent fiberoptic transmission degradation resistance of the Kavo cellular optics. Similarly, Kavo handpiece longevity following repeated use/sterilization has been demonstrated in previous DIS studies. The noise level of the 635B was measured at 65.8 decibels, well below the maximum 8-hour, 85-dB(A) exposure limit established by the Occupational Safety and Health Administration (OSHA). The compact head increases operator visibility and interocclusal access. Both clinical evaluators rated the Kavo 635B as "Excellent." The **Kavo 635B** is rated **Recommended** for use by the federal dental services.